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ABSTRACT

A pilot project was undertaken to explore ways to profile public radio audiences inexpensively and simply. The major effort was through use of the station's monthly programing guide mailing list. Persons found in this list were interviewed and their listening habits compared with a general survey (baseline) group. The survey showed that public radio listeners were more educated, more likely to be progressive, more likely to be white, less likely to watch TV or attend sports events, and more likely to listen to classical music. The report suggests that a mail questionnaire as opposed to a telephone interview was the best means to profile public radio audiences. (SK)

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ALTERNATE METHODS OF MEASURING PUBLIC RADIO AUDIENCES: A PILOT PROJECT

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Radio has languished in the shadow of its giant competitor, television, more than a quarter century. As a viable commercial medium, radio was able to re-group in the mid-sixties, by developing new programming strategies that resulted in what is now called format radio. Disregarded during this period was educational radio, which occupied mostly the FM band of the radio dial. The rapid growth of commercial FM stations need not be repeated here except to note that success of FM radio has no doubt enhanced the "visibility" of educational FM radio. With the creation of the Corporation for Public Broadcasting by Congress, educational radio found increased funding at the national level. Concurrent with the development in CPB, National Public Radio was founded to furnish a national organization to serve the local needs of educational radio stations throughout the country. In the meantime, educational radio changed its name, and became public radio.

Radio research in terms of listening audience size, listening habits and functions of the medium has generally been neglected. The radio rating services provide no more than a crude form of headcounting and station ranking by reach and frequency. Public radio suffers especially in this type of research since often times its audience size is so small that it is not measured or mentioned in the rating book.

Besides knowing how "popular" one is in the ratings is not especially valuable information for a public radio station manager. Yet, the public radio manager has legitimate information needs in terms of knowing who is in his audience, what are their program preferences and new programming they could desire. While the information needs are rather clear cut, the methods for obtaining this information are not. One alternative, telephone audience surveys of large markets, such as Miami, New York or San Francisco, are prohibitively expensive given the number of interviews required to locate randomly two or three hundred public radio listeners required for a reliable and valid audience study. The issue is clear: Are there any alternative methods of surveying one's listeners that are both inexpensive and result in valid research findings? In an attempt to answer this question, the following pilot study was undertaken to explore and reach conclusions about a limited range of alternative radio audience survey techniques.

Research Questions

Culling through a number of observations commonly made by radio managers the following project seemed appropriate given limited funds available for study.

The key decision was to focus the study in a smaller radio market since many of the public radio stations are located in smaller cities and modestly-sized metro areas. Generalizations drawn from this study could be applicable to the largest number

of public radio stations. Next, the selection of research questionnaire items and survey techniques would be limited to realistic and practical research strategies which excluded considerations such as door-to-door interviews or weekly listening diaries.

Given these restrictions the major effort was placed in exploring the use of the station's monthly programming guide mailing list. Since many stations maintain such lists they always seem to be a tempting roster of possible respondents subjects for an audience survey. The limitations of mailing lists as valid reflectors of audience opinion are well known. Only a random sample scientifically drawn from the universe of radio listeners will result in a representative profile of listener opinions. Certainly the program mailing lists must reflect, some would argue, the most available list of "heavy" or "serious" listeners. Also, in many communities one can only receive a monthly programming guide by becoming a subscribing member of the "Friends of W -FM." So, regardless of how one gets on a station's mailing list there is a good chance that the list is a most convenient roster from which to pluck individuals for study in terms of their attitudes about public broadcasting.

> The question then is quite simple: How representative of the listeners of a public radio station are individuals on a station's programming guide mailing list?

An easy way to discover the answer to this question is to conduct simultaneously a number of studies seeking to compare their results to answer the question how representative are individuals on the mailing list in comparison with a random sample of listeners drawn from the community utilizing traditional scientific sample surveying techniques.

The first decision then was to conduct a regular sample survey of the community, collecting data about the citizen's listening and viewing habits in terms of public broadcasting. This general sample survey could function as a baseline comparison group. Put another way, those public radio listeners located at random will furnish a representative sample of listeners with which to rake comparisons with results taken from a survey of mailing list members conducted at the same time as the general community survey.

Given the cost involved in conducting a survey(s) it was worthwhile to also consider some cost alternatives in such surveys. For example, considering the program mailing list, is it cheaper and worthwhile to conduct the survey by mail or to use the telephone? To answer this question a "mini-experiment" was built into the survey. One-half of the mailing list was randomly assigned to mail questionnaire condition and the remainder to a telephone interview condition. (Telephone interviewing of listeners tends to be the more common manner of surveying audiences these days.) The

purpose of this portion of the study was to assess both the cost effectiveness of the two research techniques and to guage their validity in terms of how representative the findings would be in comparison with the profile found in the community survey.

To this point we have three groups or samples that can be labelled as follows:

General Community Survey or Baseline Sample

This sample represents the community survey conducted to discover the actual distribution of public radio listening behavior in the market. From this survey will come a number of public radio listeners located at random; and given the laws of sample surveys, these should be representative of the public radio listeners one can locate using telephone interviewing procedures. This group of public radio listeners can function as a baseline public radio listener group.

-Program mailing list results in two samples or groups. The first is the mail questionnaire group and the telephone interview group. Both groups were randomly selected from the program mailing list maintained by the local public radio station. The two program mailing list groups exist to test any differences due to type of research methodology and its possible effect on the type of findings that can be traced to the methodology. Last, the study was also designed to compare costs for the various types of surveys.

Related Samples

Given the expense involved in preparing such studies discussed above, two other minor research questions were raised in passing. Some radio managers have wondered about studying two special types of populations.

The first is the volunteer listener-respondent. This is a person who given a solicitation over the air, calls the station (or in this case, the Communication Research Center) and volunteers to be interviewed. Since this type of person probably resembles the fellow who offers the station manager all types of free advice it was thought wise to find out how representative these volunteers' opinions are when compared with attitudes of listeners discovered in the baseline sample. We asked the station to broadcast for a week requesting calls from volunteers throughout the dayparts, noting that the research project was independent of the station management. The results were quite discouraging. Overall, the number of volunteers calling to be interviewed was too small to justify analysis (less than ___ calls). Therefore, this part of the project was abandoned.

The other sample dealt with students residing in university dormitories affiliated with Florida State University. Dorm residents are always excluded from commercial rating surveys and are rarely measured in any audience or media survey.

Some radio managers have wondered about the listening habits of dorm residents since they could function as a valuable source of new listeners.

However, at first glance dormitory residents are difficult to study given the difficulty of knowing the actual population. In this study we solved that problem by obtaining a current list of all dorm residents soon after the quarter commenced. The sample was stratified to take into account a number of variables including the size of the dorm and the distribution of students by class. Students were then randomly selected from the list and telephoned. Since most dorms have central switchboards this resulted in a serendipitous finding. If a student was out of his room, the switchboard operator put a message in the student's mailbox that we had called. The student then usually returned the call. This allows a researcher to only maintain one or two interviewers on hand rather than a battery of callers.

In summary, the notion of a voluntary interviewee was a flop. The second sample, dormitory residents, was most successful and economical. Naturally, for discussion purposes we will label this group the dorm sample.

FINDINGS*

Representativeness

The key point to explore is how do the various samples or groups of listeners differ from the general community sample

* The technical discussion of methodological issues, completion rates and related materials have been appended to this paper for those interested in such matters.

functioning as a baseline for comparison. The comparison between sample estimates of the general survey and the population parameters from the Census was quite close, allowing us to conclude that the sample was indeed representative of key demographic variables (See Table 4).

In comparing samples, a conservative criteria, one standard deviation, (or in this study 10 percent points difference between estimates) was judged a "significant" or meaningful difference, enough to conclude that the difference was real.

For example, 30 percent of the mailing questionnaire group listened to public radio while only 15 percent of the baseline sample listened to that much public radio, it was concluded that the mailing questionnaire overestimated the baseline by 15 percent. Further, this difference was not due to sampling fluctuations but real differences.

Radio Listening

The first comparison of interest is that between the total community sample and the three special samples.

TABLE 1

COMPARISONS BETWEEN COMMUNITY BASELINE SAMPLE FOR WEEKLY PUBLIC RADIO LISTENING

	Baseline Sample	Special Samples Public Radio Listeners		
	Total Sample [a]	Telephone	Mail	Dorm
Never Listen	75%	22%	29%	63%
1-3 hours	17	27	26	25
3 plus hours	8	51	45	12
Total Percent	100%	100%	100%	100%
N = ( )	(343)	(237)	(206)	(370)

[a] Total includes WFSU-FM listeners in the computations

As can be seen in Table 1, 75 percent of the Tallahassee population do not listen to its public radio station once a week or more. In comparison, the three samples display a markedly different pattern of public radio listening. Even the students have a weekly cume of 37 percent; however, they are much lighter listeners than either the respondents in the telephone interview group or the mail questionnaire group. Clearly these

special samples display a unique and different pattern of public radio listening than does the general public. These differences continue when attention is turned to the patterns of public radio listeners in particular.

The following discussion focuses upon the public radio listener with the non-radio listener excluded. The reason is that the randomly located listeners in the general community sample have no "never listen" category. Table 2 should clarify that a little more.

TABLE 2

COMPARISON BETWEEN PUBLIC RADIO LISTENERS IN SELECTED SAMPLES[a]

	Special Samples			
	WFSU-FM[b]	Telephone	Mail	Dorm
Public Radio				
1-3 Hours	67%	35%	37%	66%
3 Plus Hours	33	65	63	34
Total Percent	100%	100%	100%	100%
N = ( )	(86)	(184)	(147)	(136)

a - Please note that this table includes only listeners of public radio and all non-listeners have been excluded for purposes of comparison.

b - These listeners were the 25 percent located within the community random sample reported in Table 1.

The principle finding remains, namely that the special program mailing list respondents - both those interviewed on the tele-

phone and those responding to a mail questionnaire - are heavy consumers of public radio in comparison with their peers in the WFSU-FM baseline group and the dormitory student sample. These latter two groups are quite similar in their amount of public radio listening.

To restate, the principal purpose of these comparisons is to isolate for comment those unique characteristics of our special groups or samples and how they would or will differ from that group of listeners located randomly in the community sample survey and assuming that they are representative of the general audience of WFSU-FM. Thus, the next comparison deals with the programming preferences of the various samples.

WFSU-FM Program Preferences

WFSU-FM program preferences were determined by asking respondents to identify their favorite, least-liked, and most desired (but not available) programs on public radio. Based on the data displayed in Table 3, randomly located listeners (WFSU-FM Baseline) and dormitory WFSU-FM listeners were least likely to name a favorite, least-liked, or desired program. In fact, so few baseline WFSU-FM listeners were able to identify a least-liked program that even a comparison of percentages was impossible. However, respondents in both program mailing list samples (mail and telephone) were most likely to identify classical music as their favorite program offering when compared to baseline WFSU-FM listeners. Furthermore, popular music programs were most often identified as least-liked by the public radio audience in the telephone and mail samples. Of the

dormitory respondents able to identify a favorite program, both popular and classical music programs were equally preferred. The conclusion possible from this analysis is that WFSU-FM listeners, with the exception of dormitory students, generally prefer and would like to hear more classical music. However, the public radio audience in the two program mailing list samples seemed to prefer classical music offerings even more than baseline WFSU-FM listeners, almost to the exclusion of other musical alternatives.

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TABLE 3

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES
FOR
FAVORITE, LEAST-LIKED AND DESIRED PROGRAMS

	Baseline	Special Sample WFSU-FM Listeners		
	WFSU-FM Listeners	Telephone	Mail	Dorm
Favorite Program				
None	53%	24%	18%	54%
Classical Music	18	50	56	17
Popular Music	8	4	5	16
"Panorama"[a]	1	4	5	2
News/Talk	12	15	13	7
Other	8	3	3	4
Least-Liked[b]				
None	--	56%	35%	85%
Classical Music	--	3	11	4
Popular Music	--	22	30	2
"Panorama"	--	3	5	--
News/Talk	--	12	18	9
Other	--	4	1	--
Desired				
None	50%	34%	41%	39%
Classical Music	8	22	14	6
Popular Music	5	3	5	16
News/Talk	16	16	10	14
Plays/Nostalgic	6	11	12	7
Other	15	12	18	18
Total	100%	100%	100%	100%
(N)	(86)	(184)	(147)	(136)

a -"Panorama" was a varied musical program offering a mixed format of classical and popular music.
b - Only twelve baseline listeners responded to this item.

Leisure Activities

Attendance at leisure activities such as rock concerts, fine arts series, (often classical music programs), plays, and

sporting events was measured to further differentiate between the selected samples and to better describe the public radio listener. (Ultimately, responses to such items could be used to identify alternative sampling frames for measuring public radio audiences.) Baseline WFSU-FM listeners typically attended more artist series programs and plays than respondents in the baseline total sample (Table 4). When the remaining three samples were considered, public radio listeners in the telephone and mail samples regularly attended artist series and plays even more than the baseline WFSU-FM listeners. Also, respondents in the mail questionnaire sample were least likely to regularly attend sporting events. Conversely, students living in dormitories were as likely to attend plays but not as likely to attend artist series events as the public radio listener in the telephone and mail samples. Dorm student respondents were more likely to attend both rock concerts and sporting events than respondents in the other samples. This conclusion supports the findings of preferred program offerings discussed in the preceeding analysis. Public radio listeners tended to prefer classical music and it is not surprising they attend more events such as the artist series than baseline total sample respondents.

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TABLE 4

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES FOR LEISURE ACTIVITIES

	Baseline		Special Sample WFSU-FM Listeners		
	Total Sample	WFSU-FM Listeners	Telephone	Mail	Dorm
Rock Concerts	17%	21%	17%	13%	48%
Artist Series	24	36	61	59	38
Plays	24	40	58	57	56
Sporting Events	57	57	50	31	72
(N)	(342)	(86)	(184)	(147)	(136)

Note: Percentages in this table represent the number of respondents in each sample claiming to regularly attend each of these leisure activities.

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DEMOGRAPHIC VARIABLES

The following discussion briefly reviews the differences between the various samples to ascertain any difference between the various groups and the baseline listener group located in the community survey. The traditional variables were included, namely, education, occupation, age, sex and race. Obviously, all variables cannot be compared for all samples.

For example, neither age nor education was appropriate in the validity assessment of the student dormitory sample.

Education

The data displayed in Table suggests that WFSU-FM listeners in the baseline, telephone and mail samples were considerably more educated than the respondent in the baseline total sample. Furthermore, WFSU-FM listeners in the mail and telephone samples tended to be more educated than the public radio audience surveyed in the general sample (baseline WFSU-FM listeners). This finding is not very surprising since public radio listeners have often been characterized as more educated than the general population. Also, one might hypothesize that members in a program mailing list compiled by a university supported station should be more educated than the average public radio listener.

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This hypothesis was supported in this study. The data in Table 3 also suggests that mail respondents held more higher degrees than did WFSU-FM listeners in the telephone sample. The occupational data presented in Table suggests one possible explanation for this finding.

Occupation

For comparative purposes, the item dealing with occupation was recast for dormitory respondents. Students were asked to identify the occupation of their family breadwinner. WFSU-FM listeners in the telephone and mail samples were much more likely to be employed as professionals than respondents in either baseline sample (See Table Appendix). WFSU-FM listeners interviewed in the total baseline sample were also more likely to be professionals requiring a college degree when compared to non-listeners in the sample. WFSU-FM listeners in all samples were less likely to be employed in service occupations (sales, maids, television repairmen) than respondents in the baseline community sample. Minimal differences were found between all samples when management occupations (supervisors) were considered.

Possible conclusions drawn from this analysis of the occupational data suggest that, regardless of sampling or methodological strategies, WFSU-FM listeners were generally employed in higher socioeconomic occupations than respondents in the total sample.

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Age, Sex and Race

Since there was little difference between the various samples on these three variables, the tabular results follow in Appendix C. With the exception of the dormitory student group, the age distribution for the remaining samples was approximately the same.

In terms of gender most samples or groups were equally split about 55 percent males and the remainder, 45 percent, female. There was some pronounced tendency for the respondents on the program mailing lists to be male. This bias is no doubt due to the habitual use of the male's name when constructing a mailing list (The mail questionnaire was sent to one specific person, while the telephone interviewer was instructed to talk only to the person on the mailing list.)

In terms of race, most listeners to public radio in Tallahassee are white. The only real difference here, was that the mailing list respondents for the program guides were 96 percent white.

Media Use Habits

Variables considered in determining media use habits included: (1) commercial television viewing, (2) commercial and public radio listening, (3) national and local television news viewing, and (4) news magazine readership.

Television Viewing. Differences were found between the WFSU-FM listener located randomly in the community survey and the total sample concerning the weekly amount of time spent viewing commercial television and local and national news programs (Table Appendix). The randomly located WFSU-FM listeners tended to view more national news (over three programs per week)

than the total sample respondents. However, many differences were found when the remaining samples were considered. First, the dormitory respondents tended to generally watch much less television and television news than others. Second, respondents in the mail sample tended to watch less commercial television than public radio listeners in the telephone or the two baseline samples. Third, WFSU-FM listeners in the telephone, mail and dormitory samples watched less local news than respondents in the two baseline samples. Fourth, the public radio audience contacted in the telephone, mail and dormitory samples watched less national news than the baseline WFSU-FM listeners. Based on these findings, respondents in the mail and dormitory samples reported watching less television, overall, than WFSU-FM listeners in the telephone interview sample and the two baseline samples.

DISCUSSION

Public Radio Listener (Baseline)

The typical public radio listener, contacted in the community sample, was generally: more educated, employed in professional rather than service occupations, and younger in comparison with the respondents in the total community sample. In brief the public radio listener contacted in the community sample was very different from the general population. Only twenty-one percent of the baseline sample reported listening to WFSU-FM at least once a week. Further, the difficulty of reaching a unique segment of the general population such as public radio listeners using simple random sampling techniques are further compounded for larger markets. Conceivably, thousands of telephone interviews could be necessary before reaching even one public radio listener. Consequently,

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huge expenditures of money would be necessary to collect reliable and valid data in larger markets. Thus alternate methods of measuring public radio listeners were evaluated to determine not only their validity for measuring these audiences, but also their relative cost.

Alternative Samples Comparisons

For one of the alternative samples to be classified as a valid measurement of public radio audiences, it must closely approximate the baseline WFSU-FM listener baseline sample. Given the representativeness of the baseline total sample for the Tallahassee market, a reasonable assumption might be that the baseline WFSU-FM listeners also represented the local public radio audience. Based on this assumption, three samples were compared to the baseline WFSU-FM listeners to determine their validity.

The results of this analysis indicated that respondents in the telephone portion of the mailing list in comparison with the randomly located public radio listener were:

- more educated
- more likely to be employed in professional occupations
- older
- more likely to be white
- listened more to public radio
- more likely to read a news magazine
- prefer and desire more classical music programs
- more active in the community
- attended more artist series programs and plays than baseline public radio listeners.

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The mail sample respondent was in comparison with the randomly located WFSU-FM listener:

- even more educated
- more likely to be in a professional occupation
- older
- more likely to be white
- less likely to watch commercial television and fewer newscasts
- more likely to listen to public radio
- more likely to read more news magazines
- likely to prefer and desire more classical music
- more active in the community
- more likely to attend artist series programs and plays, and
- less likely to attend sporting events.

Few differences were found, however, comparing differences between the mail and telephone samples. Generally, the mail respondent was somewhat more educated, watched less commercial television, was less likely to identify a least-liked WFSU-FM program, and less likely to attend sporting events than listeners in the telephone sample. Based on these findings, the mail respondent was probably more likely to be in the lower upper class than the WFSU-FM listener in the telephone sample. The ability or willingness of the mail respondent to identify a least-liked program also suggests that these public radio listeners may have been somewhat less satisfied with the available programs than the telephone listener.

Conversely, student and baseline WFSU-FM listeners were very similar when demographic variables were considered. However, both age and education variables, important when differentiating program mailing list sample and community survey sample were not useful when comparing the student and baseline WFSU-FM listeners.

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Based upon the analysis of the selected samples validity in this study no one alternate sample would be ideal for a precise and accurate measurement of public radio audiences. Certainly cost should be a factor in any decision of who and what to study in one's audience. (See Appendix B for an analysis of costs related to this study.) For example, in this project the most economical sample in terms of cost per completion was the dormitory study. Yet, the dormitory study is the most "unrepresentative" group of all.

But are program mailing lists the answer? In this case the answer depends upon the questions asked and the type of public radio station format. For example, people who respond to mail questionnaires are more likely to have strong likes and dislikes in terms of programming preferences. In comparing the sample differences between telephone and mail responses of people drawn from the same roster (the mailing list for the program guide) suggested that telephone group was a little more accurately reflective of the public radio audience. But this is only a tendency. The answers in a telephone survey will no doubt be more spontaneous and less premeditated (one hopes). The evidence accumulated in this study suggests that is the case. Yet, the crux of the matter remains; namely, how representative is the mailing list in comparison with the listeners one discovers randomly in a community sample? The answer would vary depending upon the conditions under which a mailing list is assembled. If one is required to donate money to receive the guide, then the population of the list will be biased toward older, white, middle aged people able to afford the guide. Further, if the

format of the station is classical music, then one kind of person is more apt to be on the mailing list than if the station stresses popular music or public affairs. However, the conclusion is inescapable, mailing lists are unrepresentative of a station's general listenership. In this study the list reflected the opinions of a group of viewers that likes classical music and to a less extent public affairs.

The answer then to our earlier rhetorical question can then be phrased: If you have a notion of who is on your mailing list, and it is important to know their wants and needs in terms of programming and related information, then a telephone interview of a sample of mailing list is in order.

If you wish to explore and perhaps develop a feel for new programs, then sampling the mailing list is not the solution. (It could be one part of the solution, but not the whole answer.) Alternate techniques must be employed to locate and study one's listening audience. One suggested technique, called a focused sampling for a lack of a better term, entails something like the procedures employed in a regular survey. The main difference is that upon reaching a home, the interviewer quickly ascertains if the individual listens to public radio. If the answer is no, the interview is terminated. Only those people who listen to public radio are interviewed in depth. Certainly this is a compromise with expensive cost of a general community survey. The sample located in such techniques is going to be representative of one's audience (assuming the rules of sample surveying are followed in locating the public radio listener for the in-

terview). This allows one to collect a sufficiently large number of listeners to study at a reduced cost.

Also, the analysis of leisure activities discussed earlier suggests other potentially viable sampling frames. Future research may be concerned with assessing the validity and economy of using theatre patron lists or memberships to clubs in some markets. Classical music enthusiast lists may also provide a valid sampling frame for measuring audiences of public radio stations offering classical music, e.g., patrons to a local symphony orchestra. Naturally, other lists would be more appropriate to measure audiences of stations offering other types of music.

Future media researchers should be concerned with identifying valid and economical sampling frames for measuring public radio audiences. Once this problem has been solved, the researcher can then be concerned with identifying unique needs possible satisfied by public radio stations.

APPENDIX A

The study was conducted during May and June, 1974 in Tallahassee, Florida. All telephone interviews were conducted using guidelines established at the Communication Research Center at Florida State University. Samples interviewed by telephone included: (1) general Tallahassee Community Survey baseline, (2) dormitory group and (3) One-half of the program mailing list. The remaining half of the WFSU-FM mailing list was surveyed by mailed questionnaire. Completion rates for each sample are discussed below and can be found in Table 2.

General Sample

The random community sample (baseline) was collected in two stages. First, households in the WFSU-FM coverage area including Tallahassee and much of Leon County, Florida were randomly selected from a criss-cross telephone directory listing homes by exchange. Respondents in 1243 homes were interviewed and asked the sex and age of each permanent resident in each household. The resulting list of residents was utilized as the sampling frame for the random selection of an individual in each home to be interviewed. Those individuals were interviewed concerning their general media use and public radio listening habits.

Since the sample survey estimates closely approximated population parameters, the general sample was judged as statistically representative of the Tallahassee market. Based on these results, the general sample of Tallahassee residents provided an adequate baseline for validity assessments of the remaining samples.

Dormitory Sample

Individuals were also selected for the dormitory sample, by first stratifying by dormitory and randomly selected based on the proportion of students residing in each housing unit. Return call requests were left for students not in their rooms during regular evening interviewing times (between 7:00 and 10:00 PM). A trained interviewer was available at the Communication Research Center during normal working hours to receive returned calls.

Mailing List Samples

The WFSU-FM program mailing list was stratified by zip codes and then randomly divided into two groups. One group was interviewed by telephone and is referred to as the telephone sample in the following discussions. The second half of this list received questionnaires in the mail and is labelled the mail sample.

Volunteer Sample

Announcements requesting that interested and concerned listeners call the Communication Research Center to participate in an audience survey were broadcast for two weeks on WFSU-FM. Unfortunately, too few listeners responded to these requests making any data analysis impossible. Therefore, the volunteer sample will not receive further attention in this report.

Completion Rates

Both adjusted and unadjusted completion rates were computed for the two phases of the general sample and the dormitory, telephone, and mail samples. The unadjusted rates were computed

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by dividing the number of completed, usable interviews by the total number of attempts by telephone or the number of mailed questionnaires. These rates were then adjusted, in the samples collected by telephone, by removing: (1) disconnected or business numbers, (2) busy signals, and (3) not-at-homes. The mail sample was adjusted for undeliverable questionnaires.

TABLE 5

COMPLETION RATES FOR
GENERAL, DORMITORY, TELEPHONE
AND MAIL SAMPLES

Category Removed	General (1)[a]		General (2)[b]		Dorm		Phone		Mail	
	N	%[c]	N	%	N	%	N	%	N	%
Unadjusted	1959	63%	739	46%	734	50%	324	73%	347	59%
Disconnects	1675	74%	723	47%	716	52%	315	75%	321[d]	64%
Busy	1649	75%	707	48%	716	52%	313	76%		
Other	---	---	699	49%	716	52%	312	76%		
Not Home	1345	92%	569	60%	379	98%	263	90%		
Wrong Answer	---	---	444	77%	---	---	---	---		
(N)	(1243)		(343)		(370)		(237)		(206)	

a - First phase of general sample (household selection).
b - Second phase of general sample (individual selection).
c - Percent of completions.
d - Undeliverable questionnaires.

APPENDIX B

COST ANALYSIS

The purpose of this study was to determine the most economical samples and methodologies for surveying public radio listeners. A few words of caution are in order before discussing the results of the cost analysis. First, since all expenses were relative to this specific study, the data in Table __ presents only the percentage of the total budget expended for each of the four samples (baseline, telephone, mail, and dormitory). Second, some expenses, such as telephones, were already available, at the Communication Research Center for no charge. Other researchers might be forced to install additional instruments rendering telephone methods more costly and possibly impractical. Also, a trained cadre of telephone interviewers was already available to the researcher further reducing actual costs. Third, all telephone calls were local, eliminating toll charges. Fourth, all expenses not unique to one sample or methodology, for example the checking of coders, have not been included in this analysis.

Based on the findings of the cost analysis (Table 4), the general random sample (baseline) was most expensive. Since the general sample was collected in two stages, this finding was not unexpected. When the cost of the two mailing list samples (telephone and mail) was considered, the telephone procedure was somewhat more expensive for both total cost and cost per completion. However, the total expenditure for both samples was somewhat deflated. First, the availability of the

necessary equipment (telephones) and staff probably reduced the expected cost of the telephone procedure. Second, the availability of automated addressing machines probably reduced the expected cost of staff members required to address envelopes. However, the size of the questionnaires, necessitating unusually high mail costs, probably offset this savings for the mail sample.

By far, the dormitory sample was the least expensive when cost per completion was considered. However, this cost was probably deflated by the interviewing method unique to the dormitory sample. The number of interviews conducted during normal working hours of the Communication Research Center was approximately 76. The cost for these interviews was computed by multiplying the number of completions by the average interview time (fifteen minutes) and then by the cost per interview.

Since the procedures normally performed to complete an interview, for example dialing a number and waiting for the operator to page the respondent, were eliminated in these interviews, the cost per completion was somewhat less than the other samples collected by telephone in this study.

In conclusion, all four samples possessed unique characteristics making a comparative cost analysis somewhat difficult for future studies. However, the mail procedure was somewhat less expensive than the telephone method, the general sample was definitely the most expensive, and the dormitory was most economical.

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Table 6

RELATIVE EXPENSES INCURRED
FOR THE COLLECTION OF SPECIAL
AND GENERAL SAMPLES

Source	Baseline	Special Samples			
	Total Sample	Telephone	Mail	Dorm	
Sampling	2%	1%	3%	1%	
Coding	1%	1%	2%	1%	
Supervisory Personnel	3%	2%	1%	2%	
Interviewing	29%[a]	17%	3%[b]	23%	
Supplies	-	-	11%	-	
Total of Budget[c]	35%	21%	17%	27%	(100%)
Cost/per Completion	30%	26%	23%	21%	(100%)

NOTE: Percentages in the body of this table represent the portion of the total budget spent on each item for the four samples. All figures in the body of this table total to one hundred percent (100%).

[a] This figure includes both interviewing periods.

[b] This figure includes the costs incurred for the follow-up procedures.

[c] These figures represent the total percent of the total budget incurred for each sample.

[d] Cost per completion percentages for each sample were computed by dividing the cost per completion for each sample by the cost per completion for the entire study.

APPENDIX C

Table 7

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES FOR OCCUPATION

	Baseline Community Survey		Special WFSU-FM Listeners Samples		
	Total Sample	WFSU-FM Listeners	Telephone	Mail	Dorm
Professional	17%	29%	53%	53%	20%
Management	13%	14%	8%	17%	22%
Blue Collar	18%	17%	5%	3%	16%
Service	34%	21%	21%	17%	22%
Student	10%	10%	11%	6%	0%
No Answer	8%	9%	2%	4%	14%
Total (N)	100% (343)	100% (86)	100% (184)	100% (147)	100% (136)

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Table 8

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES FOR AGE

	Baseline Community Survey		Special WFSU-FM Listeners Samples	
	Total Sample	WFSU-FM Listeners	Telephone	Mail
18-30	43%	50%	34%	35%
31-50	29%	32%	38%	35%
Over 50	25%	14%	27%	29%
No Answer	3%	4%	1%	1%
Total (N)	100% (343)	100% (86)	100% (184)	100% (147)

NOTE: Dormitory respondents were not included in this analysis.

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Table 9

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES FOR SEX

	Baseline Community Survey		Special WFSU-FM Listeners Samples		
	Total Sample	WFSU-FM Listeners	Telephone	Mail	Dorm
Male	46%	44%	67%	70%	48%
Female	52%	55%	32%	27%	51%
No Answer	2%	1%	1%	3%	2%
Total (N)	100% (343)	100% (86)	100% (184)	100% (147)	100% (136)

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Table 10

COMPARISONS BETWEEN BASELINE AND SPECIAL SAMPLES FOR RACE

	Baseline Community Survey		Special WFSU-FM Listeners Samples		
	Total Sample	WFSU-FM Listeners	Telephone	Mail	Dorm
White	75%	80%	96%	95%	82%
Black/Other	23%	16%	4%	4%	17%
No Answer	2%	5%	0%	1%	1%
Total (N)	100% (343)	100% (86)	100% (184)	100% (147)	100% (136)